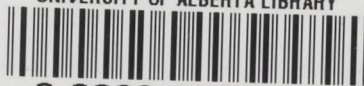


1948/49

UNIVERSITY OF ALBERTA LIBRARY



0 0003 8197 547

SD
414
C2E116
1948-
49

Ex LIBRIS
UNIVERSITATIS
ALBERTAENSIS



18 MAR 1954

R26-149

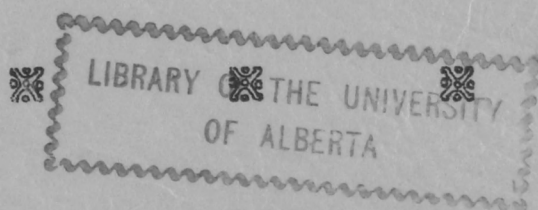
ANNUAL REPORT

OF THE ONE WEEK LOAN

GENERAL SCIENCES

EASTERN ROCKIES FOREST
CONSERVATION BOARD

FOR THE
FISCAL YEAR
1948 -49



SD
414
C2E116
1948/49

CALGARY, ALBERTA

31st MARCH, 1949

Ex libris
UNIVERSITATIS
ALBERTAENSIS



EASTERN ROCKIES FOREST CONSERVATION BOARD

ANNUAL REPORT

of the

EASTERN ROCKIES FOREST CONSERVATION BOARD

The Honourable Colin O'Brien, K.C.,
Minister of Mines and Resources,
OTTAWA, ONTARIO

for the

Sir:

FISCAL YEAR

with the annual Report of the Eastern Rockies
Forest Conservation Board for the fiscal period
1st April 1948 - 31st March 1949, pursuant to the
provisions of the Eastern Rocky Mountain Forest
Conservation Act of 1947. I am

1948-49

Your obedient servant,

Howard Kennedy,
Chairman.

Calgary, Alberta

31st March 1949

25th June 1949.

LIBRARY
UNIVERSITY OF ALBERTA

2299444

ANNUAL REPORT

WEST BOND

EASTERN BOOKS FOR THE COMMISSION BOARD

for the

FINANCIAL YEAR

1943-44

First March 1944

Calgary, Alberta

LIBRARY
UNIVERSITY OF ALBERTA

EASTERN ROCKIES FOREST CONSERVATION BOARD

To

The Honourable Nathan E. Tarrar,
The Honourable Colin Gibson, K.C.,
Minister of Mines and Resources,
OTTAWA, ONTARIO

Sir:

I have the honour to submit herewith the annual Report of the Eastern Rockies Forest Conservation Board for the fiscal period 1st April 1948 - 31st March 1949, pursuant to the provisions of the Eastern Rocky Mountain Forest Conservation Act of 1947. I am

Your obedient servant,

Howard Kennedy,
Chairman.

Calgary, Alberta,
25th June 1949.

2299444

EASTERN ROCKIES FOREST CONSERVATION BOARD

To

The Honourable Nathan E. Tanner,
Minister of Lands and Forests,
EDMONTON, ALBERTA.

Sir:

I have the honour to submit herewith the annual Report of the Eastern Rockies Forest Conservation Board for the fiscal period 1st April 1948 - 31st March 1949, pursuant to the provisions of the Eastern Rocky Mountain Forest Conservation Act of 1947. I am

Your obedient servant,

Howard Kennedy,
Chairman.

Calgary, Alberta,
25th June 1949.

TABLE OF CONTENTS

PERSONNEL

	<u>Page</u>
PERSONNEL	1
REPORT OF THE BOARD MEMBERS	2
REPORT OF THE CHIEF ENGINEER	6
REPORT OF THE CHIEF FORESTER	13
REPORT OF THE SECRETARY	24
FINANCIAL STATEMENT	30
APPENDIX "A" - MAP OF THE EAST SLOPE AREA	
APPENDIX "B" - ORGANIZATION CHART	

TABLE OF CONTENTS

Page

1	PERSONNEL
2	REPORT OF THE BOARD MEMBERS
6	REPORT OF THE CHIEF ENGINEER
13	REPORT OF THE CHIEF FORESTER
24	REPORT OF THE SECRETARY
30	FINANCIAL STATEMENT
	APPENDIX "A" - MAP OF THE EAST SLOPE AREA
	APPENDIX "B" - ORGANIZATION CHART

REPORT OF THE BOARD MEMBERS

Although ¹ the members and Secretary of the Board were appointed in the latter part of 1947 and funds provided from the Dominion Treasury for preliminary work in the fiscal period of 1947-48, the final enabling legislation was completed only in the early months of 1948. The Minister of Mines and Resources of the Dominion of Canada and the Minister of Lands and Mines of the Province of Alberta arranged that the Agreement

PERSONNEL

Howard Kennedy, C.B.E., M.C., B.Sc. Chairman of the Board

J. M. Wardle, C.B.E., B.Sc. Dominion Member of the Board

H. G. Jensen, LL.B. Alberta Member of the Board

J. D. Middlemass, E.D., B.Sc. Secretary

E. S. Fellows, M.Sc.F. Chief Forester

C. M. Walker, B.A.Sc., D.L.S., A.L.S. Chief Engineer

It is gratifying to be able to report splendid progress during the year. All key positions on the Board's staff have been filled by competent personnel and the groundwork laid for more productive effort during the coming year.

It has been a year of organization

PERSONNEL

Howard Kennedy, C.B.E., M.C., B.Sc.	Chairman of the Board
J. M. Wardle, C.B.E., B.Sc.	Dominion Member of the Board
H. G. Jensen, LL.B.	Alberta Member of the Board
J. D. Middlemass, E.D., B.Sc.	Secretary
E. S. Fellows, M.Sc.F.	Chief Forester
C. M. Welker, B.A.Sc., D.L.S., A.L.S.	Chief Engineer

* * * *

REPORT OF THE BOARD MEMBERS

Although the members and Secretary of the Board were appointed in the latter part of 1947 and funds provided from the Dominion Treasury for preliminary organizational work in the fiscal period of 1947-48, the final enabling legislation was completed only in the early months of 1948. The Minister of Mines and Resources of the Dominion of Canada and the Minister of Lands and Mines of the Province of Alberta arranged that the Agreement of June 19, 1947 should come into effect on April 1, 1948.

The Board has completed, therefore, its first full year of corporate life and herewith presents a report of its activities for the period 1st April 1948 to 31st March 1949, supplementing its interim report for the fiscal year ending 31st March 1948. This general summary is followed by reports of the Chief Engineer, Chief Forester, and Secretary, which cover more specifically the work undertaken in the divisions of Engineering, Forestry and Administration. Financial operations are summarized in a Balance Sheet appearing at the end of the report.

It is gratifying to be able to report splendid progress during the year. All key positions on the Board's staff have been filled by competent personnel and the groundwork laid for more productive effort during the coming year.

It has been a year of organization

and survey, in addition to provision of essential material and equipment so that future progress may be accelerated. Despite the unduly late spring of 1948 and organizational difficulties to be surmounted, some 34 miles of road were built during the open season. Surveys that will enable the letting of contracts for the construction of some 70 miles of road in 1949 were completed under the Chief Engineer.

It is anticipated that equipment purchased by the Board and operated under their supervision by the Alberta Forest Service, augmented by hired equipment and day labour, will add another 40 miles or more of road in addition to those for which contracts will be let.

Materials such as culverts, piling and bridge materials have been ordered and stockpiled to accelerate the road program, which is considered to have top priority in order that the forests of the Eastern Slopes may have adequate fire protection.

Experimental plantings and studies of the effects of grazing have been undertaken by the Chief Forester, and plans completed for developing these activities more fully in 1949. Revision of cutting regulations in the forests has been completed in co-operation with the Alberta Forest Service, and type mapping of all the forested areas has been started by the Dominion Forest Service at the request of the Board. Implementing of plans for soil and vegetal covering surveys and their effect on run-off is

scheduled to be undertaken as soon as weather and travel conditions permit in the coming season. Installation of meteorological stations and stream gauges has been provided for in 1949.

Financial and Administrative arrangements have functioned smoothly due to the complete co-operation of the Treasury representatives of both Governments. Due economy was observed and the Board operated well within the estimates framed in 1947. Most satisfactory Public Relations have been maintained throughout the year and Members of the Board addressed Service Clubs, Canadian Clubs and Chambers of Commerce at many places in Alberta as well as attending some of the Alberta Forest Service Ranger School sessions in Red Deer in January 1949. The Board has co-operated also with the Alberta Department of Economic Affairs in the production of an educational film entitled "Green Acres."

In conclusion, the splendid support and co-operation which the Board has received at all levels in the Departments of both Governments with which it has dealt are acknowledged gratefully; as are the unstinted efforts and the spirit of teamplay displayed by all members of the staff in launching the work of the Board and setting a pattern for the future.

Functioning as a corporate body

under II George VI, Chap. 59 - The Eastern Rocky Mountain Forest Conservation Act, the Board begs to submit its annual report for the period 1st April 1948 - 31st March 1949.

a broad outline of the activities of the Engineering Division of the Board's staff in the several areas along the Eastern Slope of the Rocky Mountains in which the Board has jurisdiction.

Howard Kennedy, Chairman

When J. M. Wardle, Dominion Member

established in March H. G. Jensen, Alberta Member

and consequently considerable time was taken up in locating and securing the services of suitable engineering staff for the first season's work. It had been hoped that experienced engineers could be obtained on a permanent and continuing basis, but this proved impossible, at least for the present, seasonal staff only being available.

ENGINEERING PROJECTS Previous to the setting up of the Engineering Division the Board had decided on a general policy regarding roads in the Reserve areas. A main trunk road with 20' top, permanent culverts, treated timber bridges, H13 loading, and with limited grade of 8 per cent, was to be located and constructed joining the Crownest, the Bow River, and the Clearwater Forests with the location approximating the north and south central axis of these forests as nearly as general topography and bridge sites would permit.

Class B or secondary roads were to be largely lateral roads with 14' travelling

REPORT OF THE CHIEF ENGINEER

C. M. Walker

This report provides only a broad outlined of the activities of the Engineering Division of the Board's staff in the several areas along the Eastern Slope of the Rocky Mountains in which the Board has jurisdiction.

When the Engineering Division was established in March 1948 there were no personnel and consequently considerable time was taken up in locating and securing the services of suitable engineering staff for the first season's work. It had been hoped that experienced engineers could be obtained on a permanent and continuing basis, but this proved impossible, at least for the present, seasonal staff only being available.

ENGINEERING
PROJECTS

Previous to the setting up of the Engineering Division the Board had decided on a general policy regarding roads in the Reserve areas. A main trunk road with 20' top, permanent culverts, treated timber bridges, H15 loading, and with limited grade of 8 per cent, was to be located and constructed joining the Crowsnest, the Bow River, and the Clearwater Forests with the location approximating the north and south central axis of these forests as nearly as general topography and bridge sites would permit.

Class B or secondary roads were to be largely lateral roads with 14' travelling

surface, permanent or semi-permanent culverts and bridges, at least 40' cleared right-of-way, limiting grades 12 per cent, to be gravelled as and when possible.

Class C roads were to be modified trails, suitable for use by small tractors or jeeps in case of fire emergency.

SURVEYS

Reconnaissance Surveys. As soon as it was possible, in the early spring of 1948, rapid reconnaissance surveys were made by the Chief Engineer in the Coleman and Kananaskis areas to determine the feasibility of a main trunk road for these areas, and also to locate any possible bridge sites. Similar inspections were likewise carried out in the Jumping Pound, the Red Deer Ranger Station, and the Clearwater Ranger Station areas, as early as weather and road conditions made travel possible.

Location Surveys. As a direct result of these reconnaissance surveys two full sized survey parties, under experienced engineers, were placed in the field early in May 1948. One of these started at Coleman in the Crowsnest Pass to locate the main trunk road northerly to the Gap and up the Livingstone River, while the other re-located the Jumping Pound road and then, moving over to the Kananaskis Valley, commenced location surveys southerly up the Kananaskis River and Pocaterra Creek on the northerly section of the proposed main highway.

Approx. miles of Class B road was re-built, to standard section, in the Clearwater Forest in the Red Deer Ranger Station district with Ranger labour and Board equipment.

This section has not been gravelled.

In all, some forty-three miles of main highway location, together with fifteen miles of re-location surveys of the Jumping Pound road, were completed during the season. Detail surveys were also made of some ten bridge sites along the location lines.

CONSTRUCTION Secondary Roads. Directly following re-location surveys on the Jumping Pound road three tractors with angle-dozer (two rented and one purchased by the Board) were put to work re-building this Class B road. A small clearing and culvert crew was engaged on this project, the entire work crew being under the supervision of a capable and experienced road foreman. Permanent corrugated iron culverts were installed, and the entire fifteen miles of road was treated with first course of pit-run gravel.

Following a re-location compass survey of the old wagon road from the easterly boundary of the Clearwater Forest to the Clearwater Ranger Station (some six miles in length), re-building of this section was commenced and carried to completion by Ranger labour augmented by some casual labour for clearing and burning, also installing corrugated culverts. Actual grading was carried out with equipment purchased by the Board. First course gravel was applied over the entire six miles.

Some three miles of Class B road was re-built, to standard section, in the Clearwater Forest in the Red Deer Ranger Station district with Ranger labour and Board equipment.

This section has not been gravelled.

Minor improvements were made on several other Class B roads, more particularly in the Bow River Forest; but since such operations were not carried to completion, no details are given.

Main Trunk. When the surveys indicated the only feasible route for the main highway north from Coleman, several tractors and a clearing and culvert crew were engaged, and construction of this road was begun under an experienced foreman. Work was carried on until about December 1st and during the working period six miles of standard section was completed, with an additional two miles 60 per cent completed. Very heavy clearing and also some very heavy cuts were encountered on this work. Permanent culverts were installed, but no gravelling was done.

ROADS RE-	Secondary 24 miles.
BUILT OR	Minor improvements
NEWLY	on secondary . . 6 miles
CONSTRUCTED	Main Highway . . 7 miles
DURING 1948	

EQUIPMENT Various pieces of heavy road building equipment being in short supply, considerable difficulty was experienced in securing necessary equipment. After long delay delivery was made of the following items for Alberta Forest Service use:-

Two D6 Tractors with angledozers.
 Two TD14 Tractors with angledozers.
 One Bates Overhead Loader.
 Two heavy Graders.
 One Oliver Industrial Tractor with loader bucket.

Purchase was also made of two Willys Jeeps, two Willys Jeep 3/4-ton trucks and one second-hand four-wheel drive 3/4-ton Dodge truck for the use of the Board's survey parties.

A very considerable amount of survey equipment, e.g. transits, levels, etc., together with cooking utensils, tents, blankets, etc., were purchased in the spring of 1948 and this supply was augmented during the winter of 1948-49, the total being adequate for six parties in the field.

Two Armstrong-Siddeley 2.5 K.W. Diesel-electric generating units were installed in the Canmore and Elbow Ranger Stations. These units have not operated long enough to prove their merits.

Two carloads of treated fir piles were delivered at Lundbreck, Alberta during the winter. These are for bridge abutments and pile approaches on the main highway northerly from Coleman.

A fairly generous supply of

corrugated steel culverts was ordered in the fall of 1948 and most of this material has now been delivered, at convenient railhead points, for the Crowsnest, Bow River and Clearwater Forests.

ASSISTANCE TO MUNICIPALITIES ON ROADS LEADING TO RESERVE AREAS Arrangements were made for the Board to provide limited funds to assist municipalities in the improvement of roads leading into the Forests where this appeared necessary from the fire-fighting standpoint. The sum of \$3,000.00 of Board funds was used for this purpose, on a share basis with the Province of Alberta, for improvement of the Sundre - Red Deer Ranger Station road.

PLANS AND ESTIMATES During the winter of 1948-49 the Engineering staff was largely engaged on compilation of plans, profiles and estimates of quantities for contract work in 1949.

SPRAY LAKES PROJECT A number of inspections were made by officials of the Engineering division of the Spray Lakes Development now being carried out by the Calgary Power Company, having in mind possible effect of such development on Board interests.

Most cordial relations have existed throughout the year under review between this division of the Eastern Rockies Forest

Conservation Board and the Alberta Forest Service under the direction of Mr. J. P. Alexander, Senior Superintendent, as well as with the other Divisions of the Board's operations.

Inevitably during the first full year of operation of the Board much of the time of the Forestry staff has been occupied in becoming familiar with the area and the problems it presents as well as with the administrative machinery of the federal and provincial organizations with which it is directly concerned. The period has, therefore, been one of observing, learning, organizing and planning, rather than of active constructive effort. Nevertheless, several projects have already been started and, although the start-up phase will continue for years -- even indefinitely in some cases -- it is certain that the list of tangible accomplishments will become rapidly and progressively longer. Activities during the fiscal year 1948-49 were as follows:

FOREST PROTECTION

FOREST FIRES -- The 1948 forest fire season on the West Slope of the Rockies was a very favorable one. Within the Rocky Mountain Forest Reserves only twelve fires occurred, involving an area of only 21 1/4 acres -- an infinitesimal proportion of the total area. Timber losses through fire amounted to only 1,300 feet (board measure) of mature timber and a few acres of young growth. For the most part weather conditions were such as to keep

REPORT OF THE CHIEF FORESTER

E. S. Fellows

Inevitably during the first full year of operation of the Board much of the time of the Forestry staff has been occupied in becoming familiar with the area and the problems it presents as well as with the administrative machinery of the federal and provincial organizations with which it is directly concerned. The period has, therefore, been one of observing, learning, organizing and planning, rather than of active constructive effort. Nevertheless, several projects have already been started and, although the fact-finding phase will continue for years -- even indefinitely in some cases -- it is certain that the list of tangible accomplishments will become rapidly and progressively longer. Activities during the fiscal year 1948-49 were as follows:-

F O R E S T P R O T E C T I O N

FOREST FIRES The 1948 forest fire season on the East Slope of the Rockies was a very favourable one. Within the Rocky Mountain Forest Reserves only twelve fires occurred, involving an area of only 21 1/4 acres -- an infinitesimal proportion of the total area. Timber losses through fire amounted to only 1,800 feet (board measure) of mature timber and a few acres of young growth. For the most part weather conditions were such as to keep

the fire hazard at a low-to-moderate level, but late in the autumn a prolonged period of extreme fire hazard existed. During this period the Forest Reserves were closed to public travel. Seventy-five per cent of the fires in the Reserves were the result of carelessness on the part of the general public, and all were of human origin. Personnel of Forest Reserves were instrumental in extinguishing ten additional fires near, but outside, the boundary.

The entire field force on the Forest Reserves from superintendents to rangers, their assistants and lookout-men, are members of the Alberta Forest Service and are responsible for the day-to-day administration of the area, including the detection and suppression of fires, and for the implementation of the Board's policies. Full details on forest protection activities will be found in the annual Report of the Department of Lands and Mines of the Province of Alberta.

The Board's Forestry Division consists of a small technical staff auxiliary to the function of policy-making. Its duties are to secure information on which policy is based, to work out the technical and administrative methods required to give effect to those policies, and to observe their execution.

Much of the credit for the small fire losses sustained properly belongs to the Alberta Forest Service under whose jurisdiction the detection and suppression of fire belongs.

DEVELOPMENTS
IN PRE-SUP-
PRESSION AND
DETECTION
OF FIRE

During the summer of 1948 the Board started a programme of visible-area mapping from lookouts and prospective lookout sites. This programme is designed to show the areas which are under direct observation by lookoutmen, where new lookouts are required, and where existing lookouts could advantageously be re-located to provide a fully adequate ground detection system. A new and simplified procedure has been evolved for this work.

On the initiative of the Board, but under the direction of the Superintendent of Radio of the Alberta Forest Service, a large-scale test was made of the feasibility of using ultra-short-wave frequency-modulation radio as a primary means of communication for personnel of the Forest Reserves. The results of this test were very encouraging and subsequently the equipment was installed in fixed stations to permit of service tests over an extended period. These, too, have given good results.

Steps were taken to establish eight meteorological stations in the Forest Reserves in 1948, but shortages of some types of necessary instruments prevented these stations from being put to use during the year. The primary use of these stations will be to provide information on which forest fire danger may be assessed and, to some extent, predicted. A further very important function will be to provide indispensable data

PROTECTION The Board is happy to have the full in connection with the water economy of the Insecta region, which is referred to more fully later in this report. Plans are now under way for further extension of the weather-recording system. Survey.

The Board is co-operating with the Dominion Forest Service in a special meteorological study concerning the effect of weather on the behavior of forest fires in the mountains, and we are pleased to acknowledge the valuable work that the same service is doing for us in preparing forest-cover maps which will be of great assistance in determining the areas where special precautions against fire must be taken.

The construction of roads is under the jurisdiction of the Chief Engineer and is reported upon by him. It is important to note, however, that the primary purpose of all new roads and trails is to facilitate forest protection, and that there has been the fullest co-operation and agreement between the two Divisions involved as to the location and nature of routes of travel under construction or projected.

FIRE- A substantial increase has been
SUPPRESSION made in the quantity of standard
DEVELOPMENTS fire-fighting appliances and tools
on the Forest Reserve and some re-allocation of the equipment has been effected to provide greater strategic flexibility in the event of an emergency. Lookouts are being supplied with better fire-detection facilities.

numbers as grazed on the area in the years immediately preceding. No material changes were made in policy regarding the allocation of grazing privileges or in the

in connection with the water economy of the region, which is referred to more fully later in this report. Plans are now under way for further extension of the weather-recording system.

The Board is co-operating with the Dominion Forest Service in a special meteorological study concerning the effect of weather on the behavior of forest fires in the mountains, and we are pleased to acknowledge the valuable work that the same service is doing for us in preparing forest-cover maps which will be of great assistance in determining the areas where special precautions against fire must be taken.

The construction of roads is under the jurisdiction of the Chief Engineer and is reported upon by him. It is important to note, however, that the primary purpose of all new roads and trails is to facilitate forest protection, and that there has been the fullest co-operation and agreement between the two Divisions involved as to the location and nature of routes of travel under construction or projected.

A substantial increase has been made in the quantity of standard fire-fighting appliances and tools on the Forest Reserve and some re-allocation of the equipment has been effected to provide greater strategic flexibility in the event of an emergency. Lookouts are being supplied with better fire-detection facilities.

PROTECTION AGAINST INSECT DAMAGE The Board is happy to have the full co-operation of the Forest Insects Survey of the Dominion Department of Agriculture. Through the activities of the Forest Insect Rangers of the Survey, the Board is kept informed of any abnormal increase in insect population in all parts of the Reserve. The same officials train the Rangers of the Alberta Forest Service in the detection of insect outbreaks, while the advice of the entomologists of the organization on methods of combating any insect menace is always available. At the present time there are in the Reserve small outbreaks of damage from the lodgepole pine needle-miner (*recurvaria milleri*) and the spruce bud-worm (*Choristoneura fumiferana*), both of which are cause for concern but not for alarm.

PROTECTION AGAINST DISEASE No serious outbreaks of disease are known in the Forest Reserve. Steps are being taken to conclude an arrangement, similar to the one in effect with the Forest Insects Survey, with the Forest Pathology Laboratory of the Department of Agriculture at Saskatoon, whereby qualified forest pathologists will make a systematic survey of the Reserve and keep it under observation.

R A N G E M A N A G E M E N T

GRAZING During the 1948 grazing season approximately 23,400 cattle, 2,300 sheep, and 1,400 horses ran on the Forest Reserves. These are substantially the same numbers as grazed on the area in the years immediately preceding. No material changes were made in policy regarding the allocation of grazing privileges or in the

regulations dealing with grazing.

Range conditions were better than average and the stock left the Reserve in the autumn in good condition. No significant losses of stock were reported from any cause, except in the extreme south where about 150 animals were reported lost through predators.

RANGE With the co-operation of the
CONDITIONS Experimental Farms Service of the
Dominion Department of Agriculture
a reconnaissance survey of range conditions in the Bow River and Crowsnest Forests was made. This preliminary examination revealed that no serious or general over-grazing had been practised and that, in the main, the grass-lands were in good condition. There was evidence however, of localized over-grazing and under-grazing, both more the result of improper distribution of stock than of over-stocking or under-stocking a grazing unit as a whole. The over-grazed sites show a deterioration of forage conditions and the first stages of erosion.

Plans are completed for a full-scale systematic examination of a large part of the area by the Board's personnel during the summer, this survey to be continued seasonally until the grazing areas are completely covered. The results of this survey will be used as a basis for a complete re-examination of grazing policy and regulations and for the preparation of detailed management plans for each grazing division individually. In the same survey much information on all types of ground cover, the

forage needs of game animals, and watershed conditions as a whole will be collected.

F O R E S T M A N A G E M E N T

LOGGING During the year 16 applications for timber sales were received by the Board and of these 11 were approved and executed. Two of these were so-called "dry sales," involving the cutting of only fire-killed timber. Including small cuts under permit, Timber Sales executed in previous years, and one Timber Berth of long standing, about 23 1/2 million feet (board measure) of sawn lumber and 4 1/2 million lineal feet of round timber in various forms were taken off the Reserves in 1948, mostly in fairly small and scattered operations.

There has been as yet no very marked change in policy with regard to logging, but rather a change of basic concept of aim from one of optimum timber production to one of optimum watershed values, and a general tightening of control over such phases as brush disposal, road building, the leaving of adequate ground cover, and the disposal of sawmill refuse. Less is known about the management of forests for watershed protection than for timber production, and, in addition to the relative scarcity of fundamental data, there is a great lack of knowledge of the local factors involved on the East Slope of the Rockies. Forest policy for the area can be perfected only gradually as the necessary information on local conditions is acquired.

OTHER COMMERCIAL ACTIVITIES ON THE RESERVE

Besides grazing and the extraction of timber products, the commercial activities conducted within the Forest Reserve include coal mining, petroleum developments, trapping, and the development of hydro-electric power. None of these undertakings comes fully under the jurisdiction of this Board, but insofar as the ground cover or the surface of the soil may be disturbed the Board has the power to regulate these activities. The Board takes the view that it should interfere as little as possible with bona fide attempts to develop the natural resources of the region, and within that policy the Forestry Division is concerned chiefly with the problem of seeing that such developments do not adversely affect the optimum flow of streams and that the forest and water courses are left in proper and safe condition during and after the completion of such operations.

A major undertaking in the Forest Reserve at the present time is the Spray Lakes hydro-electric power development of Calgary Power Limited which involves, among other things, the clearing of approximately 4,000 acres of forest to provide space for water storage.

FOREST INVENTORY

The foundation of a forest inventory is the preparation of accurate forest-cover maps. The Dominion Forest Service has kindly undertaken this task, using chiefly aerial photographs made available to this Board through the courtesy of a group of oil companies which had an aerial survey made of the

greater part of the Forest Reserve at a more satisfactory scale for forestry purposes than other photographic surveys. At the same time this Board is establishing a collection of aerial photographs to be used for a variety of purposes.

EXPERIMENTAL WORK Many areas in the Reserve, particularly slopes with a south or west aspect, are devoid or almost devoid of forest growth, and are grass-covered. In order to determine whether trees can be grown satisfactorily on such sites, a number of sample plots were set up in 1948 on which an attempt to establish trees by planting and by natural and artificial seeding was made. Cattle have been fenced out of these plots and the progress of the plantations will be watched carefully. This experiment should not be construed as implying that forest-cover is necessarily better than grass-cover for the Board's purposes, but is merely an experiment to determine whether it is feasible to grow trees on such sites should this be found desirable in specific instances.

H Y D R O L O G Y

The "Eastern Rocky Mountain Forest Conservation Act" states that one of the purposes of the Board is "to conserve, develop, maintain and manage the forests in the area with a view to obtaining the greatest possible flow of water in the Saskatchewan River and its tributaries." This has been accepted as the

over-riding consideration in all the Board's activities. To carry out this mandate intelligently much data on stream flow, precipitation, soil moisture, run-off characteristics, erosion, ground-water storage capacities, and the influence of the forest generally on the water economy of the region must be obtained. Several studies are in the process of development with a view to obtaining the required information over a considerable period, several of these being planned in co-operation with other Government agencies. While there are no concrete accomplishments to record as yet, equipment, personnel, and information are being gathered to make a start on studies as soon as weather permits.

A D M I N I S T R A T I V E P O L I C Y

The Board has set many policies aimed at facilitating and improving the administration of the area and better the working and living conditions of the Ranger staff in the Forest Reserves. Among the more important of these have been re-establishing the Crowsnest Forest as a separate administrative unit, supplying a more adequate number of motor vehicles to the field force, a substantial program for the improvement of living quarters for the Ranger staff, including the installation of electric power and modern plumbing, the purchase of road-maintenance machinery, industrial tractors, and other forms of labour-saving equipment, the supplying of uniforms to Ranger personnel at one-half cost price, and the establishment of a

small technical library which will be available to the field staff for home study. It is recognized that efficient field staff is an essential pre-requisite on the administrative side to the satisfactory implementation of the Board's management policies; and since efficiency is dependent in large measure upon general well-being, every consideration is being given to those aspects of the welfare of the Ranger staff coming within the jurisdiction of the Board.

In conclusion it is a pleasure to report that a high degree of co-operation has been maintained with all branches of the Dominion and Provincial Governments with which this Board shares mutual parallel, or overlapping interests.

REPORT OF THE SECRETARY

J. D. Middlemass

Following formal ratification of the Dominion-Provincial Agreement bringing the Eastern Rockies Forest Conservation Board into being on 1st April 1948, administrative arrangements were initiated in the area brought under its jurisdiction. This area is shown in the accompanying map, Appendix "A" to this report.

MINUTES OF MEETINGS

Minutes of all Board meetings held during the year (twelve in number) were recorded and distributed to the Minister of Mines and Resources of the Dominion of Canada, through the Deputy Minister of that Department, and to the Alberta Minister of Lands and Mines in Edmonton. These Minutes reflected the decisions and policies of the Board and summarized the progress of work accomplished in the various fields of activity.

FINANCES

In the financial field three main accounts were operated:-

(a) Maintenance Operating:-
Into this account were channelled the routine maintenance charges incurred by the Alberta Forest Service, acting as the Board's agents in its area of jurisdiction. To this fund the Province of Alberta contributed the sum of \$131,679.39, the account being subject to a running audit by a representative of the Dominion

Auditor-General. Monthly and quarterly statements were prepared for the Board's information as to expenditure progress.

(b) Maintenance Administration:-
Into this account were channelled the routine costs of the Board's own operations. Funds to meet these costs were secured from the Dominion Treasury Office; the transfers being deposited as required to the Board's bank account in Calgary. This account was also subject to a running audit by a representative of the Dominion Auditor-General, and monthly statements were prepared for the information of the Board and of Dominion and Provincial Treasury officials. As Agreed the Dominion and Provincial contributions to the combined Maintenance accounts totalled \$300,000.00, on which total the estimates were based. It should be noted that of this sum a total of \$51,447.75 remained unspent and reverted to the Dominion Treasury.

(c) Capital:- To this account were charged all expenditures incurred for Capital equipment and projects, the costs being met from the Dominion Treasury statutory appropriation of \$1,050,000.00. Of this sum \$368,163.88 was disbursed. It should be noted, however, that the Agreement provided for Capital appropriations to carry over from year to year during the six-year period of Capital expenditure.

Certain expenditures, amounting to \$35,769.12 were made directly by the Board,

mainly on survey costs preliminary to road construction. The balance of the expenditure, amounting to \$332,394.76, was made by the Province of Alberta for equipment and projects duly authorized by the Board. A revolving fund, created by the Province, was used to defray these charges; and quarterly claims, duly audited by a representative of the Dominion Auditor-General and approved by the Chairman of the Board, were passed to the Dominion Treasury Office for periodic reimbursement.

Revenue:- A revenue total of \$131,679.39, mainly from timber dues, was derived by the Department of Lands and Mines from the area under the Board's jurisdiction for the fiscal period. This sum, in turn, was contributed by the Province of Alberta to the Maintenance fund as per agreement.

A balance sheet as at 31st March 1949 accompanies this report and gives the particulars of the Board's financial dealings for the year under review.

INVENTORIES

A physical check of the movable equipment inventory, contributed by the Province of Alberta in the Board's zone, as at 1st April 1948, was completed and certified, as to count and valuation of \$30,537.37, by Provincial officials and the Board's Chief Forester. A catalogue of buildings, etc., contributed by the Province and taken over by the Board as at the same date, is in course of preparation, to be

supplemented by a photographic record.

These inventories, contributed by the Province of Alberta at the start of the 25-year Agreement under the provisions of the Eastern Rocky Mountain Forest Conservation Act, will be carefully preserved. All additions and write-offs supplementing these original inventories are being recorded and regular checks of inventories being maintained.

ESTIMATES

As required by the provisions of the Eastern Rocky Mountain Forest Conservation Act, estimates were prepared in November 1948, in conjunction with Alberta Provincial officials, of expenditures contemplated in the 1949-50 fiscal year to implement the Board's program. These were submitted, as stipulated, to the Dominion Minister of Mines and Resources and the Provincial Minister of Lands and Mines.

These estimates amounted to:-

Maintenance - Dominion contribution	\$ 175,000.00
Provincial contribution	<u>125,000.00</u>
	\$ 300,000.00
Capital - Dominion Vote	\$ 1,050,000.00
Revote from 1948-49	<u>102,000.00</u>
	\$ 1,152,000.00

It should be noted, however, that provision is made in the act for Capital ap-

propriations to be carried over and a substantial reserve, in addition to the \$102,000.00 indicated, is available should the Board's work program during the coming season warrant its expenditure.

STAFF ANNUITY ARRANGEMENTS

Following negotiations with the Dominion Annuities Branch, a group plan for providing annuities, on an optional basis, was arranged and came into effect on 1st July 1948. Under this plan the Board contributes a sum equal to six per cent of an employee's salary, to be matched by an equal or higher contribution by the employee. Dominion annuities are available to employees on reaching fixed age limits, and after ten years' employment the Board's contributions are vested along with the employee's. If an employee withdraws from the Board's service during the ten-year period the Board's contributions are credited back to the Board.

WORKMEN'S COMPENSATION

To comply with Provincial regulations, arrangements were made to cover Board employees against accidents through the Alberta Workmen's Compensation Board, to whom a deposit of \$5,000.00 was paid, based on the Board's payroll. All accident compensation arrangements are handled through the Workmen's Compensation Board. Minor accident claims involving a total of \$563.99 were handled in this manner during the period under review.

ROUTINE ADMINISTRATION

Banking arrangements, as originally made, with the Board operating an account with a chartered bank in Calgary, to meet salary and other expenses, continued to work well.

Some alterations in the Board's office in the Public Building, Calgary, have been made to provide additional accommodation.

Relations with Dominion and Provincial officials in all Government branches associated with the Board's activities have been most cordial. This has facilitated smooth working of the Board's program during the year. An organization chart reflecting the functioning of the various Government and Board groups is submitted as Appendix "B" to this report.

The efficient and loyal service of the office staff who displayed an excellent team spirit was prominent throughout the year and is gratefully acknowledged.

EASTERN ROCKIES FOREST CONSERVATION BOARD

(Established under the Eastern Rocky Mountain Forest Conservation Act and Operating under Agreement between the Dominion and the Province of Alberta)

Statement of Assets and Liabilities as at March 31, 1949

Assets

Cash on hand and in Bank		\$ 20,648.33	
Accounts Receivable		5,064.09	
Inventories, at cost			
Loose tools and small equipment	\$ 5,006.92		
Construction materials and supplies	<u>3,540.36</u>		8,547.28
Deposits and Prepaid Expenses:			
Deposits	5,624.30		
Prepaid insurance, etc.,	<u>933.11</u>		6,557.41
Fixed Assets			
Capital improvements and works, per Schedule I		219,370.79	
Moveable equipment, etc., per Schedule IV	\$ 241,459.89		
Less: Provision for Depreciation	<u>38,210.84</u>	<u>203,249.05</u>	422,619.84
			<u>\$ 463,436.95</u>

Note: *Section 20 of the Schedule to the Act provides that upon termination of the agreement with the Province, which is for a period of not less than the twenty-five years ended 1973, (a) all improvements or works resulting from the carrying out of the programmes of the Board shall belong to the Province; (b) all other property acquired by the Board shall belong to the Dominion.

Certified Correct

J. D. Middlemass
Secretary

Approved on behalf of the Board

Howard Kennedy
Chairman

Liabilities and Proprietary Interest

Liabilities

Accounts Payable:

Province of Alberta	\$ 5,064.09
Government of Canada -	
Advances provided under	
authority of: Section	
8(1) of the Act, for	
capital expenditures	\$ 382,394.76 ✓
Less, Disbursements per	
Schedule I	<u>368,163.88</u> \$ 14,230.88

Vote 172, contribution
towards annual mainten-
ance expenses

123,290.31

Less, Disbursements, per
Schedule II

116,872.86

6,417.45

20,648.33

\$ 25,712.42

Reserved for Employees'
Retirement Fund

624.30

Deferred Liability, for equipment taken
over from the Province, to be dishcarged
on termination of the agreement

30,537.37

56,874.09

Proprietary Interest *

Balance at March 31, 1949, per Schedule III

406,562.86

\$ 463,436.95

I have examined the accounts of the Eastern Rockies Forest Conservation Board for the year ended March 31, 1949, and have obtained all the information and explanations I have required. In my opinion, the above Statement of Assets and Liabilities is properly drawn up so as to exhibit a true and correct view of the state of the Board's affairs as at March 31, 1949, according to the best of my information and the explanations given to me and as shown by the books of the Board.

Watson Sellar
Auditor General

Statement of Capital Expenditure, to March 31, 1949, from Funds Provided by the Government of Canada as authorized under Section 8(1) of the Act.

For the location and construction of forest improvements, the making of a forest inventory, reforestation, and such other works and services as the Board may consider necessary in that area of the East Slope of the Rocky Mountains forming part of the watershed of the Saskatchewan River, as more definitely described in the appendix to the Act. The total expenditure is not to exceed \$6,300,000 during the six years ended April 1, 1954.

Improvements and Works:

New Construction -

Buildings	6,757.52	
Roads and trails	<u>156,831.63</u>	\$ 163,589.15

Additions and Relocations -

Buildings	4,261.96	
Roads and trails	<u>48,784.68</u>	53,046.64

Other Expenses -

Meteorological stations	42.02	
Visibility mapping	22.68	
Film production	1,250.00	
Radio survey	<u>1,420.30</u>	<u>2,735.00</u>

219,370.79

Moveable Equipment:

Cars and trucks	52,529.98	
Tractors and heavy equipment	69,889.57	
Radio equipment	4,226.48	
Forestry equipment	6,455.63	
Camp and miscellaneous equip.	7,659.00	
Office furniture and equipment	<u>1,824.36</u>	142,585.02

Additions to Stores and Other Inventories:

Construction materials and supplies	3,540.36	
Loose tools and small equip.	<u>2,667.71</u>	<u>6,208.07</u>

Total \$ 368,163.88

Statement of Disbursements for Forest Maintenance, Protection and Managementfor the year ended March 31, 1949

	<u>Disbursed by</u>		<u>Total</u>
	<u>The Board</u>	<u>The Province</u>	
Maintenance Expenses:			
Salaries	\$ 32,280.95	\$ 100,715.45	\$ 132,996.40
Automotive expense	8,295.18	9,514.67	17,809.85
Wages	358.06	9,177.71	9,535.77
Travel	2,327.46	5,845.61	8,173.07
Printing, stationery and office supplies	6,516.10	589.36	7,105.46
Workmen's compensation	97.00	4,094.25	4,191.25
Miscellaneous supplies and expenses	600.69	1,816.00	2,416.69
Rental	3,627.00	77.15	3,704.15
Repairs and replacements (other than autos')	338.87	2,233.69	2,572.56
Board office alterations	1,863.30		1,863.30
Freight express and cartage	1,174.03	496.73	1,670.76
Special services	1,124.37		1,124.37
Postage and excise	209.83	554.00	763.83
Camp supplies	643.86		643.86
Provision for retirement fund	624.30		624.30
Telegrams and telephones	323.78	299.57	623.35
Other expenses	547.90	166.24	714.14
Interest earned on deposit with W.C. Board	14.42 cr.		14.42 cr.
	<u>60,938.26</u>	<u>135,580.43</u>	<u>196,518.69</u>
Fixed Assets:			
Buildings - Columbia Ice Fields Gauge House	586.80		586.80
Cars and trucks	26,534.30	5,055.52	31,589.82
Engineering equipment	3,342.68		3,342.68
Forestry equipment	3,233.60	744.00	3,977.60
Camp and miscellaneous equipment	4,675.21	4.46	4,679.67
Office furniture and equipment	<u>2,284.08</u>	<u>173.83</u>	<u>2,457.91</u>
	<u>40,656.67</u>	<u>5,977.81</u>	<u>46,634.48</u>
Deposit with the W.C. Board	<u>2,500.00</u>		<u>2,500.00</u>
Increase in inventory of loose tools and small equipment	<u>1,965.97</u>		<u>1,965.97</u>
Prepaid Expenses:			
Unemployment insurance stamps	1.18		1.18
Insurance	<u>931.93</u>		<u>931.93</u>
	<u>933.11</u>		<u>933.11</u>
Total disbursements	<u>106,994.01</u>	<u>141,558.24</u>	<u>248,552.25</u>
Contributed as follows:			
The Province of Alberta - as required by Section 8(b) of the Act, being the amount derived by the Province from the surface rights in the area under the Board's jurisdiction			131,679.39
Dominion of Canada - by Vote 172 (Voted \$175,000 less unexpended portion \$58,127.14)			<u>116,872.86</u>
Total contributions			<u>248,552.25</u>

Note: By Section 5 of the Schedule to the Act, the remuneration and expenses of the members of the Board are to be paid by the government by whom each is respectively appointed. Such expenses are, therefore, not included above.

EASTERN ROCKIES FOREST CONSERVATION BOARD

Schedule III

Statement of Proprietary Interest

as at March 31, 1949

Balance at March 31, 1948:

Fixed assets	\$ 21,703.02	
Loose tools and small equipment	373.24	
Deposit with the Workmen's Compensation Board	<u>2,500.00</u>	\$24,576.26

Accretions during the year:

On capital account, per
Schedule I -

Improvements & works	\$ 219,370.79	
Moveable equipment, etc.	142,585.02	
Additions to stores and other inventories	<u>6,208.07</u>	368,163.88

On maintenance account, per
Schedule II -

Fixed assets	46,634.48	
Further deposit with the Workmen's Compensation Board	2,500.00	
Increase in inventories	1,965.97	
Prepaid expenses	<u>933.11</u>	<u>52,033.56</u>

420,197.44

Deduct: Provision for de-
preciation of fixed assets
during the year, per
Schedule IV

38,210.84

381,986.60

Total transferred to Balance Sheet

\$ 406,562.86

EASTERN ROCKIES FOREST CONSERVATION BOARD

Fixed Assets

as at March 31, 1949

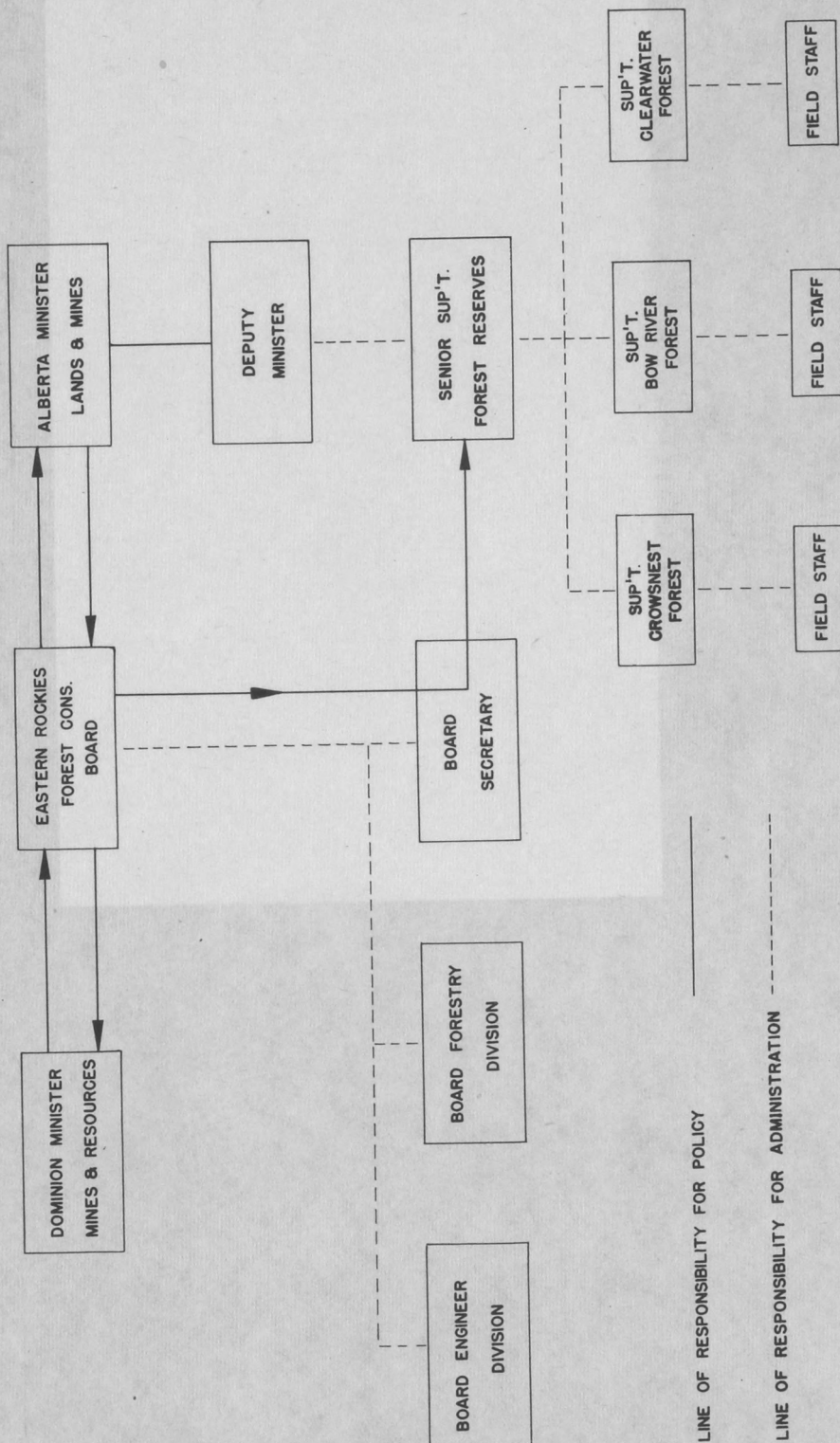
	Book Value (cost) at March 31, 1949	
	For maintenance purposes	For capital purposes
Moveable Equipment -		
Cars and trucks	\$ 44,540.42	\$ 52,529.98
Tractors and heavy equipment		69,889.57
Engineering equipment	8,225.04	
Radio equipment		4,226.48
Forestry equipment	4,626.66	6,455.63
Camp and miscellaneous equip.	5,605.90	7,659.00
*Equipment taken over from the Province		30,537.37
Office furniture & equipment	4,752.68	1,824.36
Buildings -		
Columbia Ice Fields Gauge House	586.80	
	<u>\$ 68,337.50</u>	<u>\$ 173,122.39</u>

Note: *Entered at depreciated value as at April 1, 1948

Schedule IV

Total	Provision for Depreciation to March 31, 1949		Depreciated Value
	Rate %	Amount	
\$ 97,070.40	20	\$ 19,414.07	\$ 77,656.33
69,889.57	20	13,977.91	55,911.66
8,225.04	10	822.50	7,402.54
4,226.48	20	845.29	3,381.19
11,082.29	10	1,108.22	9,974.07
13,264.90	10	1,326.48	11,938.42
30,537.37	Nil		30,537.37
6,577.04	10	657.69	5,919.35
586.80	10	58.68	528.12
<hr/> \$ 241,459.89		<hr/> \$ 38,210.84	<hr/> \$ 203,249.05
<hr/> <hr/>		<hr/> <hr/>	<hr/> <hr/>

ORGANIZATION CHART



MAY 23 RETURN

Date Due

~~EXE-001~~ MAR 15 '87

FEB 02 RETURN

NOV 26 RETURN

DEC 06 RETURN

79440 10174514370

SD 414 C2 E116 1948/1949
EASTERN ROCKIES FOREST
CONSERVATION BOARD
ANNUAL REPORT OF THE EASTERN
SERIAL M1 39721763 SCI



000038197547

SD
414
C2E116
1948/49

2299444

SCIENCE
CAMERON LIBRARY

B2